Claims:

1. A method of inhibiting transport of anandamide in an individual or animal comprising administering to the individual or animal a therapeutically effective amount of a compound represented by the following structural formula:

X - Y - Z

and physiologically acceptable salts thereof, wherein:

X is a hydrophobic aliphatic hydrocarbon chain containing from about 4 to about 30 carbon atoms and having one or more nonconjugated cis double bonds in the middle portion of the chain;

Y is selected form the group consisting of amide and ester radicals; and

Z is selected from the group consisting of hydrogen, lower alkyl, hydroxy substituted lower alkyl, aryl, hydroxy substituted aryl, heterocyclic and hydroxy substituted heterocyclic radicals.

2. The method of claim 1 wherein Z is a polar nonionizable group containing a hydroxy moiety at its distal end.

3. The method of claim 1 wherein Y is an amide radical.

4. The method of claim 1 wherein Y is an ester radical.

5. The method of claim 1 wherein X has two or more nonconjugated double bonds.

6. The method of claim 1 wherein X has at least four nonconjugated double bonds.

7. The method of claim 1 wherein Z is a hydroxy substituted aryl group.

8. The method of claim 1 wherein Z includes an alky group alpha to the amido nitrogen.

9. The method of claim 1 wherein Z is an (S) isomer of a chiral molecule.

10. A method of modifying the rate of anandamide inactivation in an individual or animal comprising administering to the individual or animal a therapeutically effective amount of an inhibitor that targets an individual's or animal's anandamide transporter, said transporter being a protein exhibiting a temperature-dependent, saturable, high affinity and Na^+-independent mechanism.

11. The method of claim 10 wherein the transporter-targeted inhibitor is an anandamide analog having a nonionizable head group containing a hydroxyl moiety at its distal end and a hydrophobic tail having a bent U-shaped stereochemical configuration.

12. A pharmacological formulation comprising a compound represented by the following structural formula:

X - Y - Z

and physiologically acceptable salts thereof, wherein:

X is a hydrophobic aliphatic hydrocarbon chain containing from about 4 to about 30 carbon atoms and having one or more nonconjugated cis double bonds in the middle portion of the chain;

Y is selected form the group consisting of amide and ester radicals;

Z is selected from the group consisting of hydrogen, lower alkyl, hydroxy substituted lower alkyl, aryl, hydroxy substituted aryl, heterocyclic and hydroxy substituted heterocyclic radicals; and

an inert carrier for the compound.

13. The formulation of claim 12 wherein Z is a polar nonionizable group containing a hydroxy moiety at its distal end.

14. The formulation of claim 12 wherein Y is an amide radical.

15. The formulation of claim 12 wherein Y is an ester radical.

16. The formulation of claim 12 wherein X has two or more nonconjugated double bonds.

17. The formulation of claim 12 wherein X has at least four nonconjugated double bonds.

18. The formulation of claim 12 wherein Z is a hydroxy substituted phenyl aryl group.

19. The formulation of claim 12 wherein Z includes an alky group alpha to the amido nitrogen.

20. The formulation of claim 12 wherein Z is an (S) isomer of a chiral molecule.